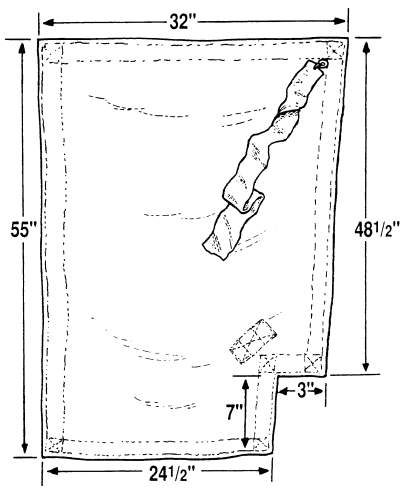
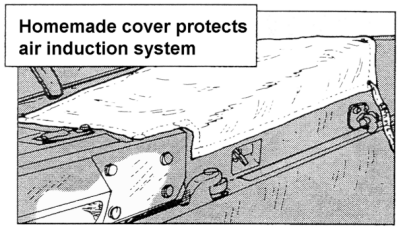
This Canvas Cover Can Keep Your Air Induction System Dry

by Captain Frederick R. Snyder





Homemade cover protects air induction system

When the subject of air induction problems comes up, many people automatically think dirt and debris, but many units are also finding that water is causing more air induction problems than dirt. Usually dirt causes air induction problems only when a tank unit is maneuvering in the field or at gunnery. On the other hand, water problems exist in the motor pool, in the field, and at the wash rack. Water that is ingested during start-up procedures not only damages Vee Packs but also the engine. As the water travels through the Vee Packs, it picks up fire retardant. The water with the fire retardant is then sprayed on the compressor blades in the engine, which causes the blades to become unbalanced, resulting in severe and possibly catastrophic damage to the engine. Units cannot afford to buy engines every time there is a heavy rain or the unit goes to the wash rack and a crewman mistakenly sprays water into the intake. This is not to say that it only takes one rainfall or one trip to the wash rack to cause catastrophic damage, but it may. Furthermore, many units cannot afford to buy two tarps per tank to ensure the air intake is completely covered.

The soldiers and mechanics of the 2nd Battalion, 70th Armor, Ft. Riley, Kansas, have developed an economical way to prevent unwanted water from entering the air intake. The unit has developed a single cover for the air intake, thus alleviating the need for a second tarp.

The sketches at right show you the dimensions of the cover. Keep in mind that you will need to add two inches all the way around the cover to fold under and stitch. At the same time, make sure your canvas shop sews two-inch wide hook side of Velcro (NSN 8315-01-172-1329) all the way around the cover. Once the cover is made, place it on the tank making sure it covers the entire intake. Next, using a marker, outline the cover on the tank. Then, cut the loop side of the Velcro to fit the outline on the tank. Use spray adhesive (NSN 8040-01-040-0947) to secure the Velcro to the tank. I suggest that you allow the adhesive several hours to set before putting the cover on.

The sketch also shows a streamer (NSN 8345-00-995-7806). The streamer is there as a reminder for the tank crew performing Check 1 of PMCS (visually inspect the tank) to remove the cover before starting the engine. Remember, the tank requires air to run, and the cover will not allow the tank to get the air it needs. The sketch also shows how the cover is placed on the tank.

The cover costs about $40 and can be used in the motor pool, the field, and especially at the wash rack on the M1A1 and M1A2 tank. For further information, read the article in the May 98 edition of *PS Magazine,* pages 10-11.

CPT Frederick R. Snyder graduated from Frostburg State University in Maryland in 1995. After AOBC, he was assigned to 4-37 AR, Ft. Riley, which redesignated to 2-70 AR, where he served as company XO and BMO. He has attended BMOC, ACCC, CAS3, and M1A2 TCCC. He is currently assigned to 1st Bde, 1st Cav, Ft. Hood, Texas.